



Divers Record Information on Fish Populations

Nancy Diersing, FKNMS Education Specialist

Divers and snorkelers participating in the Great American Fish Count kick-off dive on June 30 at Molasses Reef Sanctuary Preservation Area (SPA) were busy recording species of snappers, grunts, and groupers on their dive slates when three huge tarpon unexpectedly appeared and began to cruise the reef in search of prey. The silver kings moved as if they were one unit, not three individuals, as they crossed the reef crest, swam in and out of the sandy grooves, and finally disappeared out of sight.



Volunteer Colette Arvidson participated in the Great American Fish Count kick-off dive at Molasses Reef SPA.

Divers and snorkelers not only had the opportunity to observe these impressive fish in their natural environment, but were able to record their presence in a database that is readily accessible to scientists, resource managers, and anyone interested in fish populations. The database, which can be viewed at www.reef.org, is maintained by REEF, Reef Environmental Education Foundation, as part of their Fish Survey Program. New data are continually being entered into the

system as volunteers, trained in fish identification by REEF, contribute their latest observations about fish abundance and diversity.

Since 1992, with the support of the National Marine Sanctuary Program, REEF has coordinated the Great American Fish Count (GAFC)—a national campaign that takes place in Sanctuaries and coastal areas across the country during the first two weeks in July. The GAFC has several missions including raising awareness of fish populations and the marine environment and encouraging recreational divers and snorkelers to conduct fish surveys to collect scientifically valuable data for managers to use when making important decisions about marine resources.

During the kick-off dive, which was hosted by Sea Dwellers Dive Center, volunteer "fish counters", Sanctuary and REEF divers, roamed the reef searching out and recording all the different species

of fish they could find. This search and record technique is known as the "roving diver technique." Fish counters also noted the abundance of each species observed using an abundance code with four main categories: single (1), few (2-10), many (11-100), and abundant (>100). After the dive, the information recorded on the dive slates was transferred to



David Festa, Department of Commerce; Billy Causey, FKNMS Superintendent; and Laddie Akins, REEF director; review their fish count data.

scantron forms that were entered electronically into the main database.

At Molasses Reef SPA, a site that has been closed to fishing since 1997, eighty-seven different species of fish were recorded. Eighty-seven fish species were also counted at the second dive site, Pickles Reef, a fished area. Although the same number of species was present at both locales, the kinds of fish observed differed somewhat between the two sites. According to Leslie Whaylen, Field Operations Coordinator for REEF, "At the protected site (Molasses SPA), we saw more top predators such as groupers, snappers, and grunts than at the fished site (Pickles Reef). We also observed a greater abundance of fish in general at the Sanctuary Preservation Area site. "

In the Florida Keys National Marine Sanctuary, a special team of REEF divers consisting of those who have passed a detailed fish identification test, has been formed to regularly monitor the SPAs and corresponding fished reference sites. Data collected by the REEF's Advanced Assessment Team along with information collected by other scientists studying the fish populations, will aid resource managers in making informed decisions about the Sanctuary zones and other management tools.

***Note:** This article appeared in the Autumn 2000 issue of the newsletter of the Florida Keys National Marine Sanctuary, **Sounding Line**. For more information, visit: floridakeys.noaa.gov.*